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| EXAMINER |
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PIZIALI, JEFFREY J

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2629

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10/03/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/725,299 | Applicant(s) BECK ET AL. | |
| | Examiner Jeff Piziali | Art Unit 2629 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 14 July 2008 has been entered.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the figures.

Specification

4. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Claim 14 contains subject matter (e.g., "***display, in said selection key field, a plurality of different setting keys that respectively allow manual setting of said at least one settable value***") which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

7. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement.

Claim 14 contains subject matter (e.g., "***display, in said selection key field, a plurality of different setting keys that respectively allow manual setting of said at least one settable value***") which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 14 recites, "*an x-ray examination unit, and wherein said control unit is configured to display, in said selection key field, a plurality of different selection keys that respectively allow*

Art Unit: 2629

*a user to select said at least one preset value for different anatomical categories of x-ray examinations, and to **display, in said selection key field, a plurality of different setting keys that respectively allow manual setting of said at least one settable value for a component of said x-ray examination unit***" (in lines 5-7).

In contrast, the instant specification states, "*At the same time, **it is only the operating elements 14, 15, 16 required to activate preset values that are made available, and so an operator is not confused by further, unnecessary keys for manual activation of values. Manual activation of the values is seldom required in routine operation of the X-ray machine 1, and so operating elements for manual setting are not required***" (see Page 7, Paragraph 27).

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 2 and 10-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter:
"said control unit being configured to operate said display screen in a programmed mode in

Art Unit: 2629

*which, in an operating area of the display screen, only a selection key field is displayed, **that is activatable***" (in lines 7-9). For example:

It would be unclear to one having ordinary skill in the art what claim element is intended to be the subject of "**that is activatable**": *Is the selection key field activatable? Or rather, is the operating area activatable? Or rather, is the programmed mode activatable? Etc.*

An omitted structural cooperative relationship results from the claimed subject matter: "*said control unit being configured to operate said display screen in a manual mode in which, in said operating area of said display screen, only a setting key field is displayed, **that is activatable***" (in lines 13-15). For example:

It would be unclear to one having ordinary skill in the art what claim element is intended to be the subject of "**that is activatable**": *Is the setting key field activatable? Or rather, is the operating area activatable? Or rather, is the manual mode activatable? Etc.*

An omitted structural cooperative relationship results from the claimed subject matter: "**only one at a time**" (in line 24). For example:

It would be unclear to one having ordinary skill in the art what claim element is intended to be represented by the pronoun "**one**."

Art Unit: 2629

11. Claim 10 is indefinite where it specifies "***preset***" values (in line 9-12), since "***preset***," according to applicant's definition, merely means "*set or determined beforehand*." For example:

It would be unclear to an artisan when such values were/are "set." Prior to what claimed point in time are/were such values "set"? "*Pre*" what?

See Joseph E. Seagram & Sons, Inc. V. Marzall, Comr. Pats., 84 USPQ 180 (Court of Appeals, District of Columbia).

12. Claim 10 recites the limitation "***different display elements***" in line 20. There is insufficient antecedent basis for this limitation in the claim. For example:

It would be unclear to an artisan what from such elements are intended to be *different*. Different from each other? Aren't a plurality of individual display elements inherently different from each other? Or are the elements intended to be different relative to some other claimed element(s)?

13. Claim 10 recites the limitation "***the selected mode***" in line 29. There is insufficient antecedent basis for this limitation in the claim.

14. Claims 11-14 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

Art Unit: 2629

An omitted structural cooperative relationship results from the claimed subject matter: "***an operating device***" (in dependent claims 11-14, line 1) and "***an operating device***" (in independent claim 10, line 1). For example:

It would be unclear to one having ordinary skill in the art whether a single, identical "***an operating device***" is intended to be claimed; or rather whether plural, distinct, different, and independent "***an operating devices***" are intended to be claimed.

15. Claim 14 recites the limitations "***different selection keys***" (in line 3); "***different anatomical categories***" (in line 4); and "***different setting keys***" (in line 6). There is insufficient antecedent basis for these limitations in the claim. For example:

It would be unclear to an artisan what from such keys/categories are intended to be *different*. Different from each other? Aren't a plurality of individual keys/categories inherently different from each other? Or are the keys/categories intended to be different relative to some other claimed element(s)?

16. Claim 14 recites the limitation "***categories***" (in line 5). The addition of the word "***categories***" or "***types***" to an otherwise definite expression extends the scope of the expression so as to render it indefinite. Ex parte Copenhaver, 109 USPQ 118 (Bd. App. 1955). For example:

It would be unclear to one having ordinary skill in the art what "***categories***" is intended to convey. See MPEP 2173.05(b).

Art Unit: 2629

17. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: *"display, in said selection key field, a plurality of different setting keys that respectively allow manual setting of said at least one settable value for a component of said x-ray examination unit"* (in dependent claim 14, lines 5-7) and

"in an operating area of the display screen, ONLY a selection key field is displayed, that is activatable to preset at least one preset value selected from the group consisting of preset operating values of said medical diagnostic imaging unit and preset parameter values of said medical diagnostic imaging unit" (in independent claim 10, lines 8-12). For example:

It would be unclear to one having ordinary skill in the art whether the instantly claimed invention is limited to only displaying (in the programmed mode) a selection key field that is activatable to select preset values; or rather whether manual setting of settable values is also possible in the programmed mode.

18. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being dependent upon rejected base claim 10.

19. Claims 2 and 10-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

Art Unit: 2629

As a courtesy to the Applicant, the examiner has attempted to also make rejections over prior art -- based on the examiner's best guess interpretations of the invention that the Applicant is intending to claim.

However, the indefinite nature of the claimed subject matter naturally hinders the Office's ability to search and examine the application.

Any instantly distinguishing features and subject matter that the Applicant considers to be absent from the cited prior art is more than likely a result of the indefinite nature of the claims.

The Applicant is respectfully requested to correct the indefinite nature of the claims, which should going forward result in a more precise search and examination.

Claim Rejections - 35 USC § 102/103

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2629

22. Claims rejected under 35 U.S.C. 102(e) as anticipated by *Nokita (US 6,795,528 B2)* or, in the alternative, under 35 U.S.C. 103(a) as obvious over *Nokita (US 6,795,528 B2)* in view of *Lemelson et al (US 6,847,336 B1)*.

Regarding claim 10, *Nokita* discloses an operating device [*Fig. 1*] for a medical diagnostic imaging unit [*Fig. 1; x-ray sensor 140 used in diagnosis in medical practice*] (see *Column 3, Line 50 - Column 4, Line 53*), said operating device comprising:

a display screen [*Fig. 1, image display unit 200; Figs. 8ABC, LCD touch panel 810*];

a control unit [*Fig. 1; imaging controller 180, image processor 190*] configured to operate said display screen to enter at least one examination value [*Figs. 8AB; 835 -- e.g., imaging method parameters, standard imaging conditions, imaging region, etc.*] for implementing an examination by said medical diagnostic imaging unit;

said control unit being configured to operate said display screen in a programmed mode [*Figs. 8AB*] in which, in an operating area [*Figs. 8AB; 840*] of the display screen, only a selection key field [*Figs. 8AB; touch panel depressible imaging method object display area buttons 840*] is displayed, that is activatable to preset at least one preset value selected from the group consisting of preset operating values of said medical diagnostic imaging unit and preset parameter values of said medical diagnostic imaging unit [*Figs. 8AB; 835 -- e.g., standard imaging conditions, imaging region, imaging method parameters, etc.*];

said control unit being configured to operate said display screen in a manual mode [*Fig. 8C*] in which, in said operating area of said display screen, only a setting key field [*Fig. 8C; up and down buttons*] is displayed, that is activatable to selectively set at least one settable value

Art Unit: 2629

selected from the group consisting of settable operating values of said medical diagnostic imaging unit and settable parameters of said medical diagnostic imaging unit [*e.g., Fig. 8C; tube voltage, tube current, exposure time, focal length, etc.*];

said control unit being configured to display, in a display area [*Figs. 8ABC; at least a portion of image display area 825, object information display area 830, at least a portion of parameter display area 835*] of said display screen that does not overlap said operating area, different display elements [*Figs. 8AB; examinee name, ID number, imaging method parameters, standard imaging conditions, imaging region, tube voltage, tube current, exposure time, focal length, etc.*] respectively representing said at least one preset value and said at least one settable value;

said control unit being configured to display, at said display screen, a mode selection field [*Figs. 8AB, 850; Fig. 8C, CANCEL, OK buttons*] that is activatable to select, only one at a time, said manual mode or said programmed mode;

said control unit being configured to initially maintain all of said display area unchanged (*see Figs. 8ABC; wherein at least the examinee name, ID number, 72kV tube voltage, and the bottom vertebrae all remain visible and constant going from Figs. 8AB to 8C*), when switching between said manual mode and said programmed mode by activation of said mode selection field, until said selection key field or said setting key field in the selected mode is activated after said switching; and

said control unit being configured to display, at said display screen, a trigger key [*Figs. 8AB, 850; Fig. 8C, CANCEL button*] that, when activated, emits a current content of said display

Art Unit: 2629

area, as said at least one examination value, as an output available to said medical diagnostic imaging unit (*see the entire document, including Column 10, Line 3 - Column 11, Line 9*).

Should it be shown that **Nokita** neglects expressly teaching maintaining all of said display area unchanged when switching between said manual mode and said programmed mode by activation of said mode selection field; **Lemelson** discloses that resizing windows containing medical x-ray data is well known and commonly understood by those skill in the art.

Nokita and **Lemelson** are analogous art, because they are from the shared inventive field of operating devices for medical diagnostic imaging units.

Therefore, it would have been obvious to one having ordinary skill in the art to use **Lemelson's** resizing technique to move and resize **Nokita's** parameter modification window [in Fig. 8C] such that the window would only be big enough to overlay/cover the touch panel depressible imaging method object display area buttons [Figs. 8AB; 840], leaving display area [Figs. 8ABC; 825, 830, 835, 875] completely visible -- so as to provide the user with greater flexibility in controlling how much data can be displayed at any given time.

Regarding claim 2, **Nokita** discloses the operating device is designed as a touch-sensitive display screen [Figs. 8ABC, LCD touch panel 810] (*see Column 10, Line 3 - Column 11, Line 9*).

Regarding claim 11, **Nokita** discloses said control unit is configured to display said display elements as text elements [Figs. 8ABC; *examinee name, ID number, front cervical vertebrae, etc.*] (*see Column 10, Line 3 - Column 11, Line 9*).

Regarding claim 11, **Nokita** discloses said control unit is configured to display said display elements as graphics elements [*Figs. 8ABC; examinee name, ID number, front cervical vertebrae, vertebrae graphics, etc.*] (*see Column 10, Line 3 - Column 11, Line 9*).

Regarding claim 13, **Nokita** discloses said control unit is configured to display said trigger key at said display screen in each of said manual mode and said programmed mode (*see Column 10, Line 3 - Column 11, Line 9*).

Regarding claim 14, **Nokita** discloses said medical diagnostic imaging unit is an x-ray examination unit, and wherein said control unit is configured to display, in said selection key field, a plurality of different selection keys [*Figs. 8AB; touch panel depressible imaging method object display area buttons 840*] that respectively allow a user to select said at least one preset value for different anatomical categories [*Figs. 8AB; FRONT, CROSS-SECTION, SIDE, LEFT BACK AT A TILT ANGLE*] of x-ray examinations, and to display, in said selection key field, a plurality of different setting keys [*Figs. 8AB; FRONT, CROSS-SECTION, SIDE, LEFT BACK AT A TILT ANGLE*] that respectively allow manual setting of said at least one settable value for a component of said x-ray examination unit (*see Column 10, Line 3 - Column 11, Line 9*).

Response to Arguments

23. Applicant's arguments filed 14 July 2008 have been fully considered but they are not persuasive.

Art Unit: 2629

Applicant's arguments with respect to claims 2 and 10-14 have been considered but are moot in view of the new grounds of rejection.

By such reasoning, rejection of the claims is deemed necessary, proper, and thereby maintained at this time.

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The documents listed on the attached '*Notice of References Cited*' are cited to further evidence the state of the art pertaining to operating devices.

Art Unit: 2629

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff Piziali/
Primary Examiner, Art Unit 2629
26 September 2008